UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 9
75 HAWTHORNE STREET
SAN FRANCISCO, CALIFRONIA 94105

ENFORCEMENT AND COMPLIANCE
ASSURANCE DIVISION

DATE: AUG 20 2019

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Schnitzer Steel Industries, Inc., Oakland, California

FROM: Scott Connolly, Environmental Engineer
Air Section, Air, Waste & Analysis Branch,
Enforcement and Compliance Assurance Division

THRU: Matt Salazar, Section Chief
Air Section, Air, Waste & Analysis Branch,
Enforcement and Compliance Assurance Division

TO: File

BASIC INFORMATION

Facility Name: Schnitzer Steel Industries, Inc.

Facility Location: 1101 Embarcadero West, Oakland, California 94604

Date of Inspection: July 23, 2019

EPA Inspectors:
1. Scott Connolly, Environmental Engineer
2. Mark Sims, Environmental Engineer

Other Attendees
1. Pamela Gray, Regional Environmental Manger, Schnitzer Steel Industries, Inc.
2. Jeffery Lindburg, Manager, Enforcement Division, California Air Resources Board
3. Justin Shields, Enforcement Division, California Air Resources Board
4. Michael Wall, Supervising Air Quality Specialist, Bay Area Air Quality Management District (BAAMQD)
5. Scott Applin, Air Quality Inspector, BAAMQD
6. Danny Fung, Air Quality Inspector, BAAMQD
7. Grace Leung, Air Quality Inspector, BAAMQD

Contact Email Address: pgray@schn.com

Purpose of Inspection: To determine compliance with the Clean Air Act

Facility Type: Metal shredding and recycling yard

Arrival Time: 9:20 am
Departure Time: 12:31 pm

Inspection Type:
☒ Unannounced Inspection
☐ Announced Inspection

OPENING CONFERENCE

☒ Credentials Presented
☒ CBI warning to facility provided

The following information was obtained verbally from Pamela Gray unless otherwise noted.

Process Description: Schnitzer Steel Industries, Inc. (Schnitzer) accepts ferrous and non-ferrous metals for recycling from industrial suppliers and feeder scrap yards. The facility accepts crushed and processed cars, small appliances, light iron, steel, and other bulk ferrous and non-ferrous materials. The facility does not conduct car processing or recover refrigerants on site. The facility unloads metal deliveries by shipment contents into appropriate piles in different areas of the facility. Light iron, steel and other ferrous containing materials, including cars, are unloaded into piles near the shredder infeed conveyor. Shred materials are loaded onto a conveyor by claw cranes and fed into a hammermill shredder. Shredded metal exits the shredder and magnets remove the ferrous metal. Ferrous metals are conveyed to piles near the ship loading area. Ferrous metals are loaded into ships, mostly for export. Non-ferrous materials are sent to the joint products plant where downstream processing equipment separates non-ferrous metals from non-metallic fluff. Fluff is treated with cement for stabilization and sent to a landfill for disposal. Non-ferrous metals are bailed and sold as recycled scrap metal. The hammermill shredder is enclosed by a sheet metal and rubber sheeting enclosure. Air emissions from the hammermill shredder are collected from hoods over the entrance to the enclosure over the infeed conveyor and over the hammermill itself. Air is then ducted out of the top of the enclosure through two cyclones and two wet scrubbers, operating in parallel, before exhausting into the atmosphere through a combined stack.

Staff Interview: The Oakland facility can accept material via truck and rail, and ships out material mostly via oceangoing ships. The facility does not have any refrigerant recovery on site and requires that suppliers sign a Hazardous Materials Removal Compliance Contract (HMRCC) to certify prior removal of refrigerants. Schnitzer does not have any peddler suppliers at this facility. Schnitzer has conducted approximately five air emissions tests in the past three years to

quantify the amount of emissions from the hammermill shredder. Facility staff stated that the results were higher than expected. Typically, the shredder operates during off peak electricity hours, approximately 6 pm to 12 pm. The facility is in the process of enclosing the joint products plant with a building enclosure and routing air emissions through a baghouse for particulate matter control.

TOUR INFORMATION

EPA toured the facility: Yes

Data Collected and Observations: Inspectors observed small fluffy piles of fine particulate matter resembling shredder fluff on the ground in multiple areas around the facility, including near the property line. Multiple pick up points in the roof of the joint products plant will collect and route air emissions to the newly installed, but not yet operational baghouse.

Photos: were taken during the inspection.
A photo and video log is contained in Appendix A.

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

1. No records were reviewed on site.

CLOSING CONFERENCE

Requested documents:

- Safety Data Sheet (SDS) for Foam injected into the shredder.
- Air flow rate of shredder capture and control system (in dscfm).
- Hourly Production Rate (in tons/hour).
- Copies of Air Testing Reports for all tests used for calculating emissions.
- Daily Production Data included hour of operation and tons of metal shredded. (categorized by type of metal, e.g., autos or light iron) from January 1, 2018 to the date of the inspection.

Concerns: Recent facility emissions testing raises concerns about excess volatile organic compound emissions from the shredder and that the facility is currently uncontrolled for these types of emissions.

SIGNATURES

Report Author: [signature] Date: 8/9/19

Section Chief: [signature] Date: 8.20.19

APPENDICES AND ATTACHMENTS

1. Appendix A: Digital Image Log

Facility Name: Schnitzer Steel Industries, Inc
Facility Location: 1101 Embarcadero West, Oakland, California
Date of Inspection: July 23, 2019

APPENDIX A: DIGITAL IMAGE LOG

1. **Photographer Name:** Jeff Lindburg and Mark Sims	2. **Date of Inspection:** July 23, 2019
3. **Company/Facility Name:** Schnitzer Steel Industries, Inc	4. **Street Address, City, State:** 1101 Embarcadero West, Oakland, California
5. **Number of Images:** 52 photos	6. **Archival Record Location:** https://usepa-my.sharepoint.com/:f:/g/personal/connolly_scott_epa_gov/EuS5C6MZTR1GnhoTV9TkvtUBJrArMv-_-bvzF-jwCQbwOQ?e=nwLflo

Image Number	File Name	Date and Time	Latitude and Longitude	Description of Image
1	20190723_112608.jpg	7/24/2019 14:52	37.797866, -122.290193	Aerial Image of the facility as seen from a photo hanging in the facility conference room
2	20190723_113004.jpg	7/24/2019 14:52	37.797693, -122.290288	Metal shred pile and operations as seen from the entrance to the yard
3	20190723_113110.jpg	7/24/2019 14:52	37.797889, -122.290303	Shredder pile truck unloading area
4	20190723_113115.jpg	7/24/2019 14:52	37.797889, -122.290303	Shredder enclosure, shredded material pile and shredder stack
5	20190723_113231.jpg	7/24/2019 14:52	37.797778, -122.290278	Front loader for material handling
6	20190723_113234.jpg	7/24/2019 14:52	37.797889, -122.290303	Front loader for material handling at the shred pile
7	20190723_113313.jpg	7/24/2019 14:52	37.797889, -122.290303	Shredder enclosure, shredded material pile and shredder stack
8	20190723_113427.jpg	7/24/2019 14:52	37.797889, -122.290303	Shredder scrubbers (left), z-box cyclones, and ferrous metal separation equipment with nearby material piles
9	20190723_113657.jpg	7/24/2019 14:52	37.797889, -122.290303	Ferrous metal stacking conveyor
10	20190723_113811.jpg	7/24/2019 14:52	37.797889, -122.290303	Forklift front loader for vehicle handling operations
11	20190723_113813.jpg	7/24/2019 14:52	37.797889, -122.290303	Forklift front loader for vehicle handling operations
12	20190723_113827.jpg	7/24/2019 14:52	37.797069, -122.293249	Front loader for material handling operations
13	20190723_113846.jpg	7/24/2019 14:52	37.797069, -122.293249	Claw crane at heavy melting steel pile

14	20190723_113850.jpg	7/24/2019 14:52	37.795556, -122.291944	Claw crane at heavy melting steel pile
15	20190723_113908.jpg	7/24/2019 14:52	37.797889, -122.290303	Claw craw loading material destined for ship loading into large dump truck
16	20190723_113910.jpg	7/24/2019 14:52	37.798056, -122.293056	Close up of claw crane loading heavy melting metal into dump truck
17	20190723_113912.jpg	7/24/2019 14:52	37.798056, -122.293056	Dump truck used for transporting metal to ship loading area
18	20190723_113947.jpg	7/24/2019 14:53	37.798299, -122.293069	Full dump truck transporting metal to ship loading area.
19	20190723_114640.jpg	7/24/2019 14:52	37.796537, -122.279035	Heavy melting metal pile
20	20190723_114644.jpg	7/24/2019 14:52	37.796537, -122.279035	Heavy melting metal pile
21	20190723_114647.jpg	7/24/2019 14:52	37.796537, -122.279035	Heavy melting metal pile
22	20190723_114730.jpg	7/24/2019 14:53	37.803577, -122.291085	An item in the heavy melting metal pile
23	20190723_114733.jpg	7/24/2019 14:53	37.797889, -122.290303	An item in the heavy melting metal pile
24	20190723_114819.jpg	7/24/2019 14:53	37.795334, -122.291576	Conveyor from the shredded ferrous material piles to the ship loading
25	20190723_115022.jpg	7/24/2019 14:53	37.802521, -122.289667	Shredded ferrous metal pile
26	20190723_115157.jpg	7/24/2019 14:53	37.789963, -122.289729	"Bonus" material in "Bonus" material pile
27	20190723_115315.jpg	7/24/2019 14:54	37.790487, -122.290932	Dump truck transporting metal around the yard
28	20190723_115319.jpg	7/24/2019 14:54	37.790278, -122.290833	Close up of dump truck transporting material around the yard
29	20190723_115400.jpg	7/24/2019 14:54	37.789963, -122.289729	Construction drilling crane
30	20190723_115404.jpg	7/24/2019 14:54	37.802778, -122.283333	Close up of construction drilling crane
31	20190723_115519.jpg	7/24/2019 14:53	37.790487, -122.290932	Stationary shear(front) and z-box cyclone (back)
32	20190723_115524.jpg	7/24/2019 14:53	37.790278, -122.290833	Stationary shear
33	20190723_115708.jpg	7/24/2019 14:53	37.796537, -122.279035	Mobile shear
34	20190723_115711.jpg	7/24/2019 14:54	37.796389, -122.278889	Close up of the mobile shear engine

35	20190723_115803.jpg	7/24/2019 14:54	37.801329, -122.289667	Mobile shear
36	20190723_115808.jpg	7/24/2019 14:54	37.801111, -122.289444	Close up of mobile shear
37	20190723_115826.jpg	7/24/2019 14:54	37.803577, -122.291085	Back of shredder enclosure
38	20190723_115831.jpg	7/24/2019 14:54	37.803577, -122.291085	New building around joint products plant and flatbed trucks waiting for crushed cars to be unloaded
39	20190723_115947.jpg	7/24/2019 14:54	37.79695, -122.288858	Dump truck for material handling
40	20190723_115949.jpg	7/24/2019 14:54	37.79695, -122.288858	Dump truck for material handling
41	20190723_115957.jpg	7/24/2019 14:55	37.79695, -122.288858	Forklift front loader unloading cars from incoming trucks near the joint products plant
42	20190723_120002.jpg	7/24/2019 14:55	37.796944, -122.288611	Front loader for unloading crushed vehicles
43	20190723_120156.jpg	7/24/2019 14:55	Data Not Available	Close up of dump truck engine for material handling
44	20190723_120244.jpg	7/24/2019 14:55	37.797639, -122.288732	Auto shredder residue
45	20190723_120258.jpg	7/24/2019 14:55	37.797639, -122.288732	Conveyor exiting the joint products plant building
46	20190723_120301.jpg	7/24/2019 14:57	37.801329, -122.289667	Temporary storage bin and exit conveyor drop out for material processed in the joint products plant
47	20190723_120324.jpg	7/24/2019 14:57	37.799343, -122.287909	Rubber flaps at the entrance to the joint products plant
48	20190723_120342.jpg	7/24/2019 14:56	37.799308, -122.28758	Wall of the joint products plant near the property line
49	20190723_120423.jpg	7/24/2019 14:56	37.798351, -122.285769	Fluffy fines seen on the ground near the property line
50	20190723_121006.jpg	7/24/2019 14:57	Data Not Available	Inside the joint products plant building
51	20190723_121012.jpg	7/24/2019 14:57	37.797167, -122.288492	Inside the joint products plant building
52	20190723_121306.jpg	7/24/2019 14:57	37.797914, -122.289709	New baghouse (under construction) and stack for control of particulate matter from the joint products plant building